

**Notice of Allowability**

Application No.

10/685,991

Examiner

Khanh Dinh

Applicant(s)

ANDERSON ET AL.

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/10/2005.
2. ☒ The allowed claim(s) is/are 1,2,5-8,10-28,31-34 and 36-54.
3. ☒ The drawings filed on 14 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 6/10/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*Khanh Dinh*  
*A.U. 2151*

## EXAMINER'S AMENDMENT

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/10/2005 has been entered.
2. Claims 1, 2, 5-8, 10-28, 31-34, 36-54 are presented for examination.
3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Andre L. Marais (the Undersigned Attorney, Reg. No.48,095) on 9/1/2005.

The application has been amended as follows:

#### IN THE CLAIMS:

Please **amend** claims 1, 27, 28, 31-34, 36-54 as follows:

- 1. (Currently Amended) A computer-implemented method to perform geolocation activities relating to a network address, the method including:

maintaining a database of network addresses and associated geographic locations;

receiving a query, including a network address, against the database for a geographic location associated with the network address,

logging information concerning the query received against the database; and  
modifying geolocation activities relating to at least the network address based on the logged information,

wherein the geolocation activities include:  
collecting network information pertaining to at least the network address; and  
estimating the geographic location associated with the network address, based on the collected network information, and

wherein the modifying of the geolocation activities includes:  
prioritizing the geolocation activities relating to at least the network address.

27. (Currently Amended) A computer system to perform geolocation activities relating to a network address, the computer system including:

a database of network addresses and associated geographic locations, and  
a server to:  
receive a query, including a network address, against the database for a geographic location associated with the network address;  
log information concerning the query received against the database, and

modify geolocation activities relating to at least the network address based on the logged information,

wherein the server is to perform geolocation activities including:

collecting network information pertaining to at least the network address; and

estimating the geographic location associated with the network address, based on the collected network information, and

wherein the server is to modify the geolocation activities by:

prioritizing the geolocation activities relating to at least the network address.

28. (Currently Amended) The computer system of claim 27, wherein the server is to log the network address if a record identifying the geographic location associated with the network address is not located within the database.

31. (Currently Amended) The computer system of claim 27 including a plurality of data collection agents to collect the geolocation information.

32. (Currently Amended) The computer system of claim 31, wherein the plurality of data collection agents are geographically dispersed.

33. (Currently Amended) The computer system of claim 27, wherein the collecting of the network information is performed utilizing a plurality of data collection processes.

34. (Currently Amended) The computer system of claim 27, wherein the collecting of the network information is performed from a plurality of data sources.

36. (Currently Amended) The computer system of claim 27, wherein the server is to determine that the database does not indicate the geographic location as being associated with the network address, and to prioritize the geolocation activities relating to the network address based on the determination that the database does not indicate the geographic location as being associated with the network address.

37. (Currently Amended) The computer system of claim 36, including a log of network addresses for which the database does not indicate respective geographic locations as being associated with the network addresses, the server to prioritize the geolocation activities based on the log.

38. (Currently Amended) The computer system of claim 37, wherein the log is a customer access log that indicates location misses, the server to obtain information concerning location misses from the customer access log.

39. (Currently Amended) The computer system of claim 37, wherein the server is to prioritize the geolocation activities with respect to a plurality of network addresses included in the log.

40. (Currently Amended) The computer system of claim 27, wherein the server is to receive the query from a requester, and to communicate a message to the requester indicating an absence of an association between the network address and the geographic location in the database.

41. (Currently Amended) The computer system of claim 27, wherein the query is received at the server from a customer website, responsive to a user accessing the customer website, the network address being the network address associated with a machine of the user.

42. (Currently Amended) The computer system of claim 27, wherein the query is received via an Application Program Interface (API).

43. (Currently Amended) The computer system of claim 27, wherein the query is received via a customer extranet.

44. (Currently Amended) The computer system of claim 27, wherein the server is to determine whether the network address is likely to fall within a consolidated domain of network addresses maintained within the database.

45. (Currently Amended) The computer system of claim 44, wherein the consolidated domain of network addresses maintained within the database includes any one of a group of domains including an educational, business, service provider and government domain.

46. (Currently Amended) The computer system of claim 27, wherein the server is to identify a network address block around the network address.

47. (Currently Amended) The computer system of claim 27, wherein the estimating includes running an exact geolocation process to determine geolocation information for the network address.

48. (Currently Amended) The computer system of claim 27, wherein the estimating includes running an exact geolocation process to determine geolocation information for the identified network address block around the network address.

49. (Currently Amended) The computer system of claim 48, wherein the exact geolocation process includes any one of a group of geolocation processes including a traceroute, a latency calculation, a hostname matching operation and a DNS process.

50. (Currently Amended) The computer system of claim 27, wherein the estimating includes running an inexact geolocation process to determine geolocation information for the network address.

51. (Currently Amended) The computer system of claim 27, wherein the estimating includes forwarding the network address for manual resolution.

52. (Currently Amended) The computer system of claim 27, wherein the estimating is a tiered process, including a plurality of sequential automated mapping operations to associate the geographic location with the network address.

53. (Currently Amended) A tangible machine-readable medium storing a set of instructions that, when executed by a machine, cause the machine to perform a method to perform geolocation activities relating to a network address, the method including:

maintaining a database of network addresses and associated geographic locations;

receiving a query, including a network address, against the database for a geographic location associated with the network address;

logging information concerning the query received against the database; and

modifying geolocation activities relating to at least the network address based on the logged information,

wherein the geolocation activities include:



Art Unit: 2151

collecting network information pertaining to at least the network address; and  
estimating the geographic location associated with the network address, based  
on the collected network information, and

wherein the modifying of the geolocation activities includes:

prioritizing the geolocation activities relating to at least the network address.

54. (Currently Amended) A computer system to perform geolocation activities  
relating to a network address, the computer system including:

first means for storing network addresses and associated geographic locations;  
and

second means for:

receiving a query, including a network address, against the first means, the query  
being for a geographic location associated with the network address;

determining that the first means does not indicate a geographic location as being  
associated with the network address;

logging information concerning the query received against the first means; and  
modifying geolocation activities relating to at least the network address based on  
the logged information,

wherein the second means is for performing geolocation activities including:

collecting network information pertaining to at least the network address; and  
estimating the geographic location associated with the network address, based  
on the collected network information, and

wherein the second means is for modifying the geolocation activities by:  
prioritizing the geolocation activities relating to at least the network address.--

IN THE SPECIFICATION

Please amend the first Paragraph (page 1, lines 3-8) as follows:

**CROSS REFERENCE TO RELATED APPLICATIONS**

This application is a continuation of U.S. application Ser. No. 09/825,675 filed on Apr. 3, 2001 (Now U.S. patent Number 6,684,250), which in turn claims the priority benefit of U.S. Provisional Application No. 60/194,761, filed Apr. 3, 2000, and U.S. Provisional Application No. 60/241,776 filed Oct. 18, 2000. Each of the identified applications is hereby incorporated by reference.

***Allowable Subject Matter***

4. Claims 1-2, 5-8, 10-28, 31-34 and 36-54 are allowed.

***Reason for allowance***

5. *The above mention claims are allowable over the prior art of record does not appear to each or render obvious the claimed limitations in combination with the specific added limitations as recited in independent claims and subsequent dependent claims. None of the cited prior art discloses or teaches a method to perform geolocation activities relating to network address including a combination of: collecting network*

*information pertaining to at least a network address upon receiving a query, estimating the geographic location associated with the network address received in the query based on the collected network information and modifying of the geolocation activities containing of prioritizing the geolocation activities relating to at least the network address.*

### **Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Dinh whose telephone number is (571) 272-3936. The examiner can normally be reached on Monday through Friday from 8:00 A.m. to 5:00 P.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung, can be reached on (571) 272-3939. The fax phone number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

Application/Control Number: 10/685,991

Page 12

Art Unit: 2151

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Khanh Dinh  
Patent Examiner  
Art Unit 2151  
9/1/2005